



## PROGRAMME

### SATURDAY 23<sup>th</sup> June

16:00–19:00	Arrivals and Registration
19:00–22:00	Welcome Dinner at Museum of Art – Moravian Gallery

### SUNDAY 24<sup>th</sup> June

8:30–9:00	Opening Remarks
Systematics and Population Genetics: plenary lecture	
9:00–10:00	<b>T01 Renfu Shao</b> – Mitochondrial genomes of parasitic lice: high-throughput sequencing, gene shuffling, genome fragmentation, and insights into high-level phylogeny & classification
Systematics and Population Genetics 1, Chair: Renfu Shao	
10:00–10:15	<b>T02 Kevin P. Johnson</b> – Phylogenomics of Lice from Whole Genome Sequencing
10:15–10:30	<b>T03 Robert S. de Moya</b> – The Next Generation of Phylogenetic Relationships within Psocodea
10:30–10:45	<b>T04 Andrew Sweet</b> – Ground-dove lice, genomes, and the search for a more complete picture of host-parasite coevolution
10:45–11:00	<b>T05 Stephany Virrueta Herrera</b> – Phylogenomics of Tinamou Feather Lice and Relatives
11:00–11:30	Coffee Break
Systematics and Population Genetics 2, Chair: Jessica E. Light	
11:30–11:45	<b>T06 Oldrich Sychra</b> – <i>Myrsidea quadrifasciata</i> (Phthiraptera: Amblycera) – unique host generalist among highly host-specific chewing lice



11:45–12:00	<b>T07 Jason D. Weckstein</b> – Parasites as markers of avian host ecology and evolution: Examples from the micro and macroevolutionary histories of parasitic chewing lice
12:00–12:15	<b>T08 Daniel R. Gustafsson</b> – Major distribution patterns in the <i>Brueelia</i> -complex (Ischnocera) on perching birds (Passeriformes)
12:15–12:30	<b>T09 Jessica E. Light</b> – Population genetics and rates of movement in a colonizing parasite, <i>Geomydoecus aurei</i>
12:30–12:45	<b>T10 Jan Štefka</b> – Host specificity driving genetic structure and diversity in populations of <i>Polyplax serrata</i> on <i>Apodemus</i> hosts
12:45–14:15	<b>Lunch</b>
<b>Head Lice: History, Chair: Ian Burgess</b>	
14:15–14:30	<b>T11 Ian Burgess</b> – Lice, religion, and cultural traits
14:30–14:45	<b>T12 Kosta Mumcuoglu</b> – Human and animal lice in head louse combs from archaeological excavations
<b>Epidemiology of Human Lice, Chair: Ian Burgess</b>	
14:45–15:00	<b>T13 Kosta Mumcuoglu</b> – Head louse infestations in children and adults in Israel
15:00–15:15	<b>T14 Libor Mazánek</b> – Efficacy of combing with lice comb of head lice ( <i>Pediculus capitis</i> )
15:15–15:45	<b>Coffee Break</b>
<b>Head Lice: Resistance, Chair: John M. Clark</b>	
15:45–16:00	<b>T15 Nicolas Lamassiaude</b> – First functional characterization of a GABA receptor from the body louse <i>Pediculus humanus humanus</i>
16:00–16:15	<b>T16 John M. Clark</b> –Overcoming insecticide resistance: detection and management of insecticide-resistant human lice
16:15–16:30	<b>T17 Marina E. Ereemeeva</b> – Genetic Diversity, Markers of Pesticide Resistance and Pathogens in Human Lice from Madagascar
16:30–16:45	<b>T18 Isabel Ortega Insaurralde</b> – An insightful look at the sensory physiology of <i>Pediculus humanus capitis</i>
	<b>Free Evening</b>



**MONDAY 25<sup>th</sup> June**

<b>Genetics of Human Lice: plenary lecture</b>	
<b>8:30–9:30</b>	<b>T19 Araxi Urrutia</b> – The lice that splice: the search for the genomic underpinnings of two morphs
<b>Population Genetics of Human Lice 1, Chair: Araxi Urrutia</b>	
<b>9:30–9:45</b>	<b>T20 David L. Reed</b> – Current human louse genetic diversity as a proxy to detect ancestral hominins direct contacts
<b>9:45–10:00</b>	<b>T21 Aida Miró-Herrans</b> – Human head lice offer insight into modern human and archaic hominin contact
<b>10:00–10:15</b>	<b>T22 Barry R. Pittendrigh</b> – Body and Head Lice Genomics: From Genome Sequencing to Functional Genomics and Reverse Genetics
<b>10:15–10:45</b>	<b>Coffee Break</b>
<b>Population Genetics of Human Lice 2, Chair: David Reed</b>	
<b>10:45–11:00</b>	<b>T23 Marina E. Ereemeeva</b> – RADseq Evaluation of the Population Structure of Human Lice from Three Continents
<b>11:00–11:15</b>	<b>T24 Ariel Toloza</b> – Population genetic analysis in human head lice: comparison between microsatellite and insecticide resistance markers
<b>11:15–13:00</b>	<b>Lunch</b>
<b>Evolution of Animal Lice 1, Chair: Sarah E. Bush</b>	
<b>13:00–13:15</b>	<b>T25 Sarah E. Bush</b> – Host defense triggers rapid adaptive radiation in experimentally evolving parasites
<b>13:15–13:30</b>	<b>T26 Scott M. Villa</b> – Local adaptation to hosts of different size triggers reproductive isolation in feather lice
<b>13:30–14:45</b>	<b>T27 Alexandra Grossi</b> – Geographical variation in louse assemblages of Rock Pigeons ( <i>Columba livia</i> ) in Canada
<b>13:45–14:00</b>	<b>T28 Tomas Najer</b> – <i>Philoaterus</i> s. l. genera complex: How to get out of the mess of host-based species descriptions?
<b>14:00–14:30</b>	<b>Coffee Break</b>



### Evolution of Animal Lice 2, Chair: Jan Štefka

14:30–14:45	<b>T29 Jan Štefka</b> – Post-glacial crossroads in central Europe: co-phylogeography of voles and their <i>Hoplopleura</i> lice
14:45–15:00	<b>T30 Lajos Rozsa</b> – Coevolutionary allometry of host and parasite body size
15:00–15:15	<b>T31 Imre S. Piross</b> – Rensch's rule in bird lice: sexual selection hinders adaptation to the hosts
15:15–15:30	<b>T32 Lajos Rozsa</b> – Evolution driven by sexual selection in Trichodectid lice: the geography of parasite sex
15:30–15:45	<b>Group Photo</b>
15:45–16:30	<b>Coffee Break</b>
16:30–18:00	<b>Poster Session</b>
	<b>Free Evening</b>

### TUESDAY 26<sup>th</sup> June

8:00–17:00	<b>SOCIAL EVENT – TRIP TO LEDNICE</b>
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### WEDNESDAY 27<sup>th</sup> June

<b>Ecology of Animal Lice: plenary lecture</b>	
8:30–9:30	<b>T33 Oleg Tolstenkov</b> – Finding relations in multi-species communities of birds and ectoparasites
<b>Ecology of Animal Lice, Chair: Oleg Tolstenkov</b>	
9:30–9:45	<b>T34 Magdalena Gajdošová</b> – Host switching in tropical feather lice
9:45–10:00	<b>T35 Therese A. Catanach</b> – Two lineages of kingfisher feather lice exhibit differing degrees of cospeciation with their hosts



10:00–10:15	<b>T36 Dale H. Clayton</b> – How do birds control lice they cannot preen? A true head scratcher
10:15–10:30	<b>T37 Ghazi Khan</b> – A note on the in vitro biology of <i>Hohorstiella lata</i> (Amblycera: Phthiraptera: Insecta)
10:30–10:45	<b>T38 Ghazi Khan</b> – Degree of haematophagy of ten avian amblyceran lice (Phthiraptera: Insecta)
10:45–11:15	<b>Coffee Break</b>
<b>Head Louse Control 1, Chair: Birgit Habedank</b>	
11:15–11:30	<b>T39 Ian Burgess</b> – The „Quest for the Holy Grail“ – identifying a genuine nit loosening chemical
11:30–11:45	<b>T40 Ayşegül Taylan-Özkan</b> – Bibliometric evaluation of <i>Pediculus humanus</i> and <i>Pthirus pubis</i> publications
11:45–12:00	<b>T41 Birgit Habedank</b> – Body lice in Germany: Control of a neglected parasite
12:00–13:30	<b>Lunch</b>
<b>Phthirapterists/Phthiraptera, Chair: Tomáš Najer</b>	
13:30–13:45	<b>T42 Oldrich Sychra</b> – Collection of chewing lice of dr. Karel Pflieger in National Museum in Prague (Czech Republic)
13:45–14:00	<b>T43 Oldrich Sychra</b> – Dr. Frantisek Balat – the most famous Czech Phthirapterists
14:00–14:15	<b>T44 Vincent Smith</b> – A new lease on lice: digitising the Phthiraptera collection at the NHM, London
14:15–14:30	<b>T45 Miroslav Valan</b> – Updating of World Check List of Chewing lice: 2003-2018
14:30–15:00	<b>Coffee Break</b>
<b>Extra Plenary Session</b>	
15:00–16:00	<b>T46 Ricardo L. Palma</b> – New Zealand Lice and their hosts: a pictorial review
16:00–16:30	<b>Coffee Break</b>



<b>16:30–18:00</b>	<p><b>Roundtable I. – Automated Taxonomic Identification of Insects with Expert-Level Accuracy Using Effective Feature Transfer from Convolutional Networks“ (accepted with revisions in Systematic Biology) Head lice, Chairs: Ian Burgess John Clark, María Inés Picollo and Kosta Mumcuoglu</b></p> <p>Discussions of therapeutic interventions at ICP4 and ICP5 focussed on clinical trial methodology with alternative approaches to how trials should be conducted and on validating those methods in order to make results consistent and generalizable across different communities and regulatory systems. Since then only a tiny number of studies have been conducted with little in the way of acknowledgement of the proposals by either Barker et al. (2102) or Do-Pham et al. (2014). This is mainly because innovation in the field has either slowed, with no studies conducted, or because data may have been withheld from the public domain. For physically acting products the widespread belief is that they are resistance proofed, mainly because no obvious mechanism of resistance has been identified. But lessons from agriculture and vector control dictate that we should expect the unexpected. So how should we future-proof our louse control policies and procedures?</p> <p>Barker SC, et al. International guidelines for clinical trials with pediculicides. <i>International Journal of Dermatology</i> 2012; 51(7): 853-858.</p> <p>Do-Pham G, et al. Designing randomized-controlled trials to improve head-lice treatment: Systematic review using a vignette-based method. <i>Journal of Investigative Dermatology</i> 2013; 134(3): 628-634.</p>
<b>18:00–19:00</b>	<p><b>Roundtable II. – Artificial intelligence and its implications on taxonomy, Chair: Miroslav Valan</b></p> <p><b>Miroslav Valan (Department of Bioinformatics and Genetics at the Swedish Museum of Natural History, SMNH).</b></p> <p>Miroslav strive to be a modern taxonomist, armed with multidisciplinary skills in genetics, statistics and computer science but keeping good practices from morphology-based alpha taxonomy. He is member of BIG4 - a global consortium to train a new generation of systematic entomologists with broad profiles amalgamating classical aspects of biosystematics with the cross-disciplinary methodological innovations. The main topic of this roundtable will be presentation of his new projects: 1) Automated Taxonomic Identification of Insects with Expert-Level Accuracy Using Effective Feature Transfer from Convolutional Networks and 2) Artificial intelligence and its implications on taxonomy, i.e. automated image based phylogeny – how ideas from the Swedish ladybird project can be applicable also in taxonomy of lice. Part of this roundtable will be also discussion about citizen science contribution and advantages and disadvantages of traditional morphology-based taxonomy vs. modern cybertaxonomy.</p>
<b>Free Evening</b>	



## THURSDAY 28<sup>th</sup> June

<b>Human Head Louse: plenary lecture</b>	
<b>8:30–9:30</b>	<b>T47 Robert Vander Stichele</b> – Head lice systematic review
<b>Head Louse Control 2, Chair: Robert Vander Stichele</b>	
<b>9:30–9:45</b>	<b>T48 María Inés Picollo</b> – Evolution of pediculicides: from neurotoxic insecticides to behaviour modifiers
<b>9:45–10:00</b>	<b>T49 Krista Lauer</b> – A handheld precision controlled heated air device for the treatment of human head lice
<b>10:00–10:15</b>	<b>T50 Birgit Habedank</b> – Cold atmospheric pressure plasma (CAPP) – An innovative Pediculosis treatment approach
<b>10:15–10:45</b>	<b>Coffee Break</b>
<b>Head Louse Control 3, Chair: Kosta Mumcuoglu</b>	
<b>10:45–11:00</b>	<b>T51 Ian Burgess</b> – Can an ultrasound comb make louse treatment easier?
<b>11:00–11:15</b>	<b>T52 Birgit Habedank</b> – Efficacy evaluation of products to control head lice - protection of users
<b>11:15–11:30</b>	<b>T53 Kosta Mumcuoglu</b> – What is the importance of fomites in the transmission of head lice
<b>11:30–11:45</b>	<b>T54 Ayşegül Taylan-Özkan</b> – Knowledge and experience of teacher candidates on head louse infestations in Northern Cyprus
<b>11:30–13:00</b>	<b>Lunch</b>
<b>Faunistic and Morphology, Chair: Saima Naz</b>	
<b>13:00–13:15</b>	<b>T55 Wei Wang</b> – A new species of sucking louse <i>Hoplopleura villosissimus</i> (Psocodea: Phthiraptera: Hoplopleuridae) and a new host record of the spiny rat louse <i>Polyplax spinulosa</i> (Psocodea: Phthiraptera: Polyplacidae) from the long-haired rat, <i>Rattus villosissimus</i> (Rodentia: Muridae) in Australia



<b>13:15–13:30</b>	<b>T56 Saima Naz</b> – Data on new records of Chewing Lice (Phthiraptera) from Aquatic birds of Sindh, Pakistan
<b>13:30–13:45</b>	<b>T57 Stanislav Kolencik</b> – Megadiverse chewing lice genus <i>Myrsidea</i> – new data from neotropical region
<b>13:45–14:00</b>	<b>T58 Ali Halajian</b> – Chewing lice of passerine birds in South Africa
<b>14:00–14:15</b>	<b>T59 Jessica E. Light</b> – Host associations and genetic diversity of avian chewing lice (Insecta: Phthiraptera) from Africa
<b>14:15–14:30</b>	<b>T60 Saima Naz</b> – New records and new species of Chewing Lice (Phthiraptera) from Terrestrial game birds of Sindh, Pakistan
<b>14:30–15:00</b>	<b>Coffee Break</b>
<b>15:00–16:00</b>	<b>ISO P Assembly ICP 6</b>
<b>16:00–16:45</b>	<b>Break</b>
<b>16:45–17:15</b>	<b>Transfer to Abbey</b>
<b>17:15–18:15</b>	<b>Visit the Mendel Museum</b>
<b>18:15–22:00</b>	<b>Gala Dinner in Augustinian Abbey</b>